Claims

1.   (Previously presented) An Advanced Research Projects Agency (ARPA)-Internet Network Access/Service Provider device comprising:

a fax gateway including,

a storage device for storing an e-mail message received from an e-mail sender for transmission to a fax recipient through a packet switching network, the stored e-mail message to be converted to a fax document for transmission thereof to the fax recipient having access to a fax device;

at least one fax modem device for transmitting the fax document to the fax recipient through a public switching network, wherein a fax number designating the fax recipient is obtained independently of the e-mail.

2. (Previously presented) An ARPA-Internet Network Access/Service Provider device as recited in claim 1 wherein the storage device further can store a fax telephone number associated with the fax device of the fax recipient, the fax telephone number to be used to establish a call for the transmission of the fax document.

3. (Previously presented) An ARPA-Internet Network Access/Service Provider device as recited in claim 1 wherein the storage device can store a time-of-day for specifying a range of time during which the fax document is transmitted.

4. (Previously presented) An ARPA-Internet Network Access/Service Provider device as recited in claim 1 further including a server device to store a fax telephone number associated with the fax device of the fax recipient, the fax telephone number for establishing a call for the transmission of the fax document, said server device to store a time-of-day for specifying a range of time during which the fax document is transmitted.

5. (Previously presented) An ARPA-Internet Network Access/Service Provider device as recited in claim 1 wherein the storage device to be used to create a fax cover page for transmission thereof to the fax recipient.

6. (Previously presented) An ARPA-Internet Network Access/Service Provider device as recited in claim 5 wherein the e-mail message includes an e-mail address and the fax cover page includes a sender field extracted from the e-mail address.

7. (Previously presented) An ARPA-Internet Network Access/Service Provider device as recited in claim 6 wherein the ARPA-Internet Network Access/Service Provider device assigns an e-mail address to the fax recipient, the e-mail address being identified by a fax telephone number identifying the fax device and wherein the fax cover page for further including a destination field extracted from the fax recipient e-mail address.

8. (Original) An ARPA-Internet Network Access/Service Provider device as recited in claim 7 wherein the e-mail message includes a subject field and the ARPA-Internet Network Access/Service Provider device for including the e-mail subject field contents in the fax cover page prior to transmission thereof to the fax recipient.

9. (Original) An ARPA-Internet Network Access/Service Provider device as recited in claim 1 wherein the storage device for further assigning a home directory for storage of e-mail messages directed to the fax recipient and upon receipt of the e-mail message, for storing the email message within the assigned home directory of the fax recipient.

10. (Original) An ARPA-Internet Network Access/Service Provider device as recited in claim 1 wherein the fax gateway is coupled to the public switching telephone network

11. (Previously presented) An ARPA-Internet Network Access/Service Provider device as recited in claim 1 wherein the fax gateway is coupled to the public switching telephone network through a digital communications link.

12. (Previously presented) An ARPA-Internet Network Access/Scrviee Provider device as recited in claim 1 wherein the fax gateway is coupled to the packet switching network through a digital communications link.

13. (Previously presented): An ARPA-Internet Network Access/Service Provider device as recited in claim 1 wherein the storage device is a computer system having a conversion program to convert the e-mail message to a fax document.

14. (Original) An ARPA-Internet Network Access/Service Provider device as recited in claim 13 wherein the storage device is a computer system having an e-mail program for easing storage of the e-mail message.

15. (Original) An ARPA-Internet Network Access/Service Provider device as recited in claim 14 wherein the e-mail program and the conversion program reside externally to the fax gateway.

16. (Previously Presented) An ARPA-Internet Network Access/Service Provider device as recited in claim 1 wherein the fax gateway can receive a reply fax document from the fax recipient, and can convert the reply fax document to a reply e-mail message and transmit the reply e-mail message to the sender.

17. (Previously presented) A method for sending and receiving e-mail messages using a fax device comprising:
      receiving an e-mail message through a data communications network from an e-mail sender;
      converting the e-mail message into a fax document;
      retrieving a destination fax number independent of the e-mail message; and
      transmitting the fax document to a fax recipient thereby enabling the fax recipient to receive e-mail messages without access to the data networking network.

18. (Previously presented) A method as recited in claim 17 further including receiving a reply from the fax recipient in the form of a reply fax document, converting the reply fax document to a reply e-mail message and transmitting the reply e-mail message through the data communications network.

19. (Previously presented) A method as recited in claim 17 further including verifying a destination user address for identifying the fax recipient as being a known user.

20. (Original) A method as recited in claim 19 wherein upon unsuccessful verification of the destination user address sending a failed message.

21. (Previously presented) A computer readable medium having stored therein computer readable program code comprising instructions for performing the following steps:
  receiving an e-mail message, from through a data communications network;
  converting the e-mail message into a fax document;
  retrieving a destination fax number independent of the e-mail message; and
  transmitting the fax document to a fax recipient thereby enabling the fax recipient to receive e-mail messages without access to the data networking network.

22. (Previously presented) A device comprising:
  means for receiving an e-mail message, from through a data communications network;
  means for converting the e-mail message into a fax document;
  means for retrieving a destination fax number independent of the e-mail message; and
  means for transmitting the fax document to a fax recipient thereby enabling the fax recipient to receive e-mail messages without access to the data networking network.

23. (Previously presented) The device of claim 22 further comprising means for receiving a reply from the fax recipient in the form of a reply fax document, converting the reply fax document to a reply e-mail message and transmitting the reply e-mail message through the data communications network.

24. (Previously presented) The device of claim 22 further comprising means for verifying a destination user address for identifying the fax recipient as being a known user.